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REMARKS/ARGUMENTS

In reply to the Office Action mailed December 28, 2005, Applicants respectfully request reconsideration and allowance. In the application, claims 11-17 have been allowed, claims 1, 2, 5-8, 10 and 18-20 are rejected, and claims 3, 4 and 9 are objected to for depending on a rejected base claim. Applicants have amended claim 18 herein. Accordingly, claims 1-20 remain pending in the subject application.

Applicants would like to express their gratitude to Examiner Wachtel for discussing the subject application in a telephonic interview on March 22, 2006. These remarks will present the position taken by Applicants in the interview.

Claim 1, 5 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 2,228,028 (the "Brower patent"). In the interview, it was agreed that the Brower patent is not a sufficient anticipatory reference. However, the Examiner indicated that the Brower patent would support a rejection of the claims for obviousness. The obviousness rejection would be based upon one of ordinary skill using engineering practice to place the extractor 2 below the extractor 18. Applicants then pointed out that although the rejection characterizes the extractor vessel 2 in the Brower patent as a prewash vessel, it is not a prewash section in the context of claim 1 because claim 1 recites that the prewash section is "for converting hydrogen sulfide to sodium sulfide." However, the Brower patent explains that the feed to the extractor 2 "is extracted with an aqueous solution of a caustic alkali under conditions primarily to remove the thiophenols only." Page 2, column 2, lines 40-43. Hence, the extractor vessel 2 of the Brower patent is not a "prewash section for converting hydrogen sulfide to sodium sulfide" in the context of claim 1.

The unit operation in the Brower patent, which is more analogous to a prewash section, is the conventional H₂S removal plant 8 which expels hydrogen sulfide from the feed in line 9. Page 2, column 2, lines 33-34. The very unit which removes H₂S in the Brower patent, which is the function of the prewash section recited in claim 1 of the subject application, is disposed in the Brower patent above both extractor vessels 2 and 18 and particularly directly above extractor 2. The Brower patent teaches the arrangement that

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is opposite to what is recited in claim 1 in which the extractor section is "disposed directly above said prewash section." The Brower patent would teach one of ordinary skill in the art away from disposing an extractor section above an H₂S treating section.

Not only does the Brower patent not teach disposing either extractor vessel 2 or 18 above or below each other or above the H₂S removing unit 8, but it teaches none of the advantages of disposing an extractor section above a prewash section. One of the advantages of disposing the extractor section above the prewash section is that there is a conservation of plant space because only one footprint with associated foundation is required to support the prewash section and the extractor section. Reducing the base structure for the prewash vessel and the extraction vessel to one alleviates capital intensity associated with building a complex incorporating the subject invention. This is alluded to in the specification at page 4, lines 13-20.

Applicants respectfully submit that claim 1 and, at least for the same reasons, claims 2-10 which depend from claim 1 are distinct and not obvious over the Brower patent. Applicants respectfully request reconsideration and allowance of claims 1-10.

Claims 18-20 stand rejected under 35 U.S.C. §103(a) as being obvious over the Brower patent in view of U.S. Patent 6,824,750 (the "Bravo patent"). Claim 18 recites an apparatus comprising an extractor section and a coalescer in the extractor section which permits no more than 1 ppm of alkali from passing through the coalescer. Conventional plants for converting sulfur compounds in a hydrocarbon stream that utilize an extractor for converting mercaptans to mercaptides were typically followed by an additional vessel containing a sand filter. Claim 18 consolidates a sand filter and extractor into one vessel, again reducing plot space and alleviating capital intensity for building the complex. The sand filter is replaced by a coalescer at the top of the extractor section for coalescing stray alkali droplets together so as to gain sufficient weight to drop down in the extractor section and exit appropriately through the bottom of the extractor section.

Coalescer 58 in Figure 1 is a mesh blanket which is capable of allowing no more than 1 ppm of alkali from passing by it. The Bravo patent cited by the Examiner teaches a coalescer disposed at the top of a liquid-liquid separation column preferably comprising a

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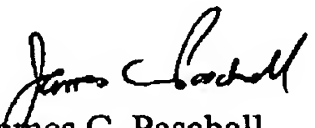
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structural packing. Column 3, lines 39-46. To distinguish this structural packing taught in the Bravo patent, Applicants have amended claim 18 to recite a mesh coalescer. The Bravo patent makes no mention of using a coalescer that comprises a mesh. The mesh coalescer has tremendous volume advantages over using a structural packing. Moreover, there is no teaching or suggestion in the Bravo patent that the structured packing disclosed therein or any other packing would be able to permit "no more than 1 ppm of alkali from passing therethrough" as recited in claim 18. By discovering a mesh base coalescer that allows no more than 1 ppm of alkali from exiting the extractor section, Applicants were able to design a plant with an extractor section and a coalescing section in one vessel whereas a conventional plant would require having a separate vessel for both the extractor vessel and the sand filter vessel. There is no teaching or suggestion either in the Brower patent or in the Bravo patent for combining two vessels into one.

Applicants respectfully submit that claim 18 and, at least for the same reasons, claims 19 and 20 which depend from claim 18 are patentable over the cited references. Accordingly, Applicants respectfully request reconsideration and allowance of claims 18-20.

Applicants respectfully request reconsideration and allowance of all of the claims pending in the subject application. Should the Examiner have any questions regarding this matter, he is invited to contact the undersigned.

Respectfully submitted,


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JCP/gm